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10/036,182	12/28/2001	Mika H. Laaksonen	00002-0240	4864

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EXAMINER
JONES, HEATHER RAE

ART UNIT	PAPER NUMBER
2481	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 December 2010</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,6,8-12,14-19 and 22-31</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,6,8-12,14-19 and 22-31</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>28 December 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed December 23, 2010 have been fully considered but

they are not persuasive.

The Applicant argues that neither Takemura nor Sato teaches that "the

most recent information regarding the adjustments is stored in a lossy format

comment field of the non-transitory computer-readable medium". The Examiner

respectfully disagrees. Takemura discloses in col. 8, lines 47-50 that the finish

information (which is the most recent information regarding the adjustments) may

be attached to the image data by defining a file format that includes both the

image data and the finish information and forming data according to the format,

which is interpreted by the Examiner to mean that both the image data and the

finish information is formatted using the same format. Furthermore, the finishing

information reads on the most recent information adjustments. However,

Takemura fails to disclose that the format is a lossy format. The Sato reference

is then referenced to disclose a file having a lossy format (col. 3, lines 24-29),

wherein the file as can be seen in Fig. 2 is a file comprising both an image data

area (M1) and a comment field (M2). Therefore, the combination of the

Takemura and Sato references meet the claimed limitations.

35 USC § 101

2.   The medium claims 1, 2, 4-6, 8, 9, and 31 are considered to be statutory

because they are only directed towards non-transitory computer-readable mediums.

The device claims 10-12 and 14-17 are considered to be statutory because the

specification does not disclose that the device can be implemented solely using

software. The method claims 18, 19, and 22-30 are considered to be statutory because

they are tied to an apparatus, wherein the apparatus is a display device.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
> or described as set forth in section 102 of this title, if the differences between the
> subject matter sought to be patented and the prior art are such that the subject
> matter as a whole would have been obvious at the time the invention was made
> to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was
> made.

4.   Claims 1, 2, 4-6, 8-12, 14-19, and 22-31 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Takemura (U.S. Patent 6,657,658) in view of Sato (U.S.

6,650,365).

        Regarding claim **1**, Takemura discloses a non-transitory computer-

readable medium for storage of image or audio data so that an image or an audio

representation can be represented based on the image or audio data, the non-

transitory computer-readable medium comprising: the image or audio and most

recent information (finishing information) regarding adjustments that have been made to the image or audio representation after the image or audio data was input in the non-transitory computer-readable medium, wherein the most recent information (finishing information) regarding the adjustments is stored in the comment field of the non-transitory computer-readable medium, and wherein the image or audio representation is stored on the non-transitory computer-readable medium without reflecting the adjustments that have been made thereto (Fig. 6; col. 8, lines 22-56 – the image data and the finishing information are stored separately and the image data is the original image data as can be seen from Fig. 6). However, Takemura fails to disclose that the image data and comment field are stored in a lossy format.

Referring to the Sato reference, Sato discloses in Fig. 2 an example of the allocation of data areas of an image file formed in the memory card. Furthermore, Sato discloses that the image file is compressed according to the JPEG algorithm (col. 3, lines 24-29). It is well known in the art that it is a component of JPEG that the data is stored in a lossy format.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have stored the image as in a lossy format as disclosed by Sato in the device disclosed by Takemura in order to take advantage of the lossy compression algorithms which takes the limitations of the human eye into account and discards information that cannot be seen, which allows the image to be further compressed and reduces the file size.

Regarding claim **2**, Takemura in view of Sato discloses all the limitations as previously discussed with respect to claim 1 as well as disclosing that the non-transitory computer-readable medium comprises at least two fields such that said lossy format comment field is separate from a field in which said image or audio data is stored (Takemura: col. 8, lines 47-56; Sato: Fig. 2; col. 3, lines 24-29).

Regarding claim **4**, Takemura in view of Sato discloses all the limitations as previously discussed with respect to claim 1 including that the non-transitory computer-readable medium being adapted to provide information regarding changes that are to be made to the image or the audio presentation before representation thereof (Takemura: col. 8, line 57 - col. 9, line 21 - as can be seen from Fig. 6 that before the final image is printed it undergoes image processing).

Regarding claim **5**, Takemura in view of Sato discloses all the limitations as previously discussed with respect to claim 1 including that the non-transitory computer-readable medium comprises compressed image or audio data (Takemura: col. 8, lines 22-56).

Regarding claim **6**, Takemura in view of Sato discloses all the limitations as previously discussed with respect to claim 1, as well as disclosing that the non-transitory computer-readable medium comprises an image data field (Takemura: col. 8, lines 47-56).

Regarding claim **8**, Takemura in view of Sato discloses all the limitations as previously discussed with respect to claim 1, including that the image data field comprises a JPEG file or similar (Sato: col. 3, lines 24-29).

Regarding claim **9**, Takemura in view of Sato discloses all the limitations as previously discussed with respect to claims 1 and 6 as well disclosing a non-transitory computer-readable medium wherein the adjustments relate to one or more of the following adjustments: brightness of the image; contrast of the image; white balance of the image; gamma correction of the image; boundaries of the image; sharpening of the image; or quality of the image (Takemura: col. 8, lines 10-22).

Regarding claim **10**, Takemura discloses a device, comprising: a storage for storing image data associated with an image, along with most recent information (finishing information) regarding adjustments made to the image data after the data was stored into the storage in a non-transitory computer-readable medium, wherein the image data is stored without reflecting the adjustments that have been made thereto; and wherein the most recent information (finishing information) regarding the adjustments is stored in a comment field of the non-transitory computer-readable medium; and a processor (33) for processing the image data based at least in part on said most recent information (finishing information), said most recent information (finishing information) regarding the adjustments being indicative of changes to be made to the image data before the image is displayed on a display (45) (Figs. 6 and 8; col.10, lines 20-36). However, Takemura fails to disclose that the image data and comment field are stored in a lossy format.

Referring to the Sato reference, Sato discloses in Fig. 2 an example of the

allocation of data areas of an image file formed in the memory card.

Furthermore, Sato discloses that the image is compressed according to the

JPEG algorithm (col. 3, lines 24-29). It is well known in the art that it is a

component of JPEG that the data is stored in a lossy format.

Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made to have stored the image as in a lossy format as

disclosed by Sato in the device disclosed by Takemura in order to take

advantage of the lossy compression algorithms which takes the limitations of the

human eye into account and discards information that cannot be seen, which

allows the image to be further compressed and reduces the file size.

Regarding claim **11**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claim 10 as well as disclosing a device

wherein the processor (33) is adapted to change at least one of the following

features of the image based at least in part on said most recent information

(finishing information) regarding the adjustments: brightness of the image;

contrast of the image; white balance of the image; gamma correction of the

image; boundaries of the image; sharpening of the image; or quality of the image

(Takemura: col. 8, lines 10-22; col. 10, lines 20-36).

Regarding claim **12**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claim 10 including that the changes in the

image to be displayed do not affect the image data stored in the storage
(Takemura: col. 8, lines 30-46).

Regarding claim **14**, Takemura in view of Sato discloses all the limitations
as previously discussed with respect to claim 10 including a device wherein the
processor (33) is adapted to change the information indicative of the changes in
the image (Takemura: col. 12, lines 36-41).

Regarding claim **15**, Takemura in view of Sato discloses all the limitations
as previously discussed with respect to claim 10 as well as disclosing that the
device comprises a portable device (Takemura: the digital camera in Fig 6 is
portable).

Regarding claim **16**, Takemura in view of Sato discloses all the limitations
as previously discussed with respect to claim 10 including that the device
comprises a mobile station (Takemura: the digital camera in Fig. 6 is mobile).

Regarding claim **17**, Takemura in view of Sato discloses all the limitations
as previously discussed with respect to claim 10 including that the device
comprising a digital camera (Takemura: Fig. 6).

Regarding claim **18**, Takemura discloses a method of displaying an
image, comprising: storing image data associated with the image in a data
storage within an image data field of an image data storage unit; storing, in the
data storage, most recent information (finishing information) indicative of
modifications made to the image after storing of the image data so that said most
recent information (finishing information) indicative of modifications can be

fetched when the image is to be displayed by a display device, wherein said most

recent information (finishing information) indicative of modifications is stored in a

format comment field of the image data storage unit, and wherein the

modifications are not reflected in the image data stored in the data storage; and

modifying the image based on said most recent information (finishing

information) indicative of modifications; and displaying the modified version of the

image (Fig. 6; col. 8, lines 22-56 – the image data and the finishing information

are stored separately and the image data is the original image data as can be

seen from Fig. 6). However, Takemura fails to disclose that the image data and

comment field are stored in a lossy format.

Referring to the Sato reference, Sato discloses in Fig. 2 an example of the

allocation of data areas of an image file formed in the memory card.

Furthermore, Sato discloses that the image is compressed according to the

JPEG algorithm (col. 3, lines 24-29). It is well known in the art that it is a

component of JPEG that the data is stored in a lossy format.

Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made to have stored the image as in a lossy format as

disclosed by Sato in the device disclosed by Takemura in order to take

advantage of the lossy compression algorithms which takes the limitations of the

human eye into account and discards information that cannot be seen, which

allows the image to be further compressed and reduces the file size.

Regarding claim **19**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claim 18 a method wherein said image

data field of the image data storage unit is separate from the lossy format

comment field of the image data storage unit (Takemura: col. 8, lines 47-56;

Sato: Fig. 2; col. 3, lines 24-29).

Regarding claim **22**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claim 18 as well as disclosing a method

wherein the modification comprises modification of at least one of the following

features of the image: brightness of the image; contrast of the image; white

balance of the image; gamma correction of the image; boundaries of the image;

sharpening of the image; or quality of the image (Takemura: col. 8, lines 10-22;

col. 10, lines 20-36).

Regarding claim **23**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claim 18 as well as disclosing a method

wherein the most recent information indicative of the modifications of the image

is stored while the image data remains substantially unchanged after the image

has been modified (Takemura: col. 8, lines 30-46).

Regarding claim **24**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claim 18, but fails to disclose a method

comprising the steps of: dividing the image area into a plurality of image blocks

before the step of storing the image data; compressing the image data in each of

the image blocks separately; storing the compressed image blocks in the data

storage means; selecting at least one of the image data blocks to be fetched

from the data storage means based on the information indicative of

modifications; fetching the selected at least one image data block from the data

storage means; decompressing the at least one fetched image data block; and

displaying the content of the decompressed at least one image data block.

Official Notice is taken to store image data using JPEG compression and the

process described above is part of JPEG compression. Therefore, it would have

been obvious to one of ordinary skill in the art at the time the invention was made

to have stored the image using JPEG compression because JPEG provides low

complexity and utilizes memory efficiently.

Regarding claim **25**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claim 18, but fails to disclose a method

wherein the selection of the image data blocks is accomplished to adjust the size

of the image area to be displayed. Official Notice is taken that cropping may be

used to alter an image and that it is a well-known technique. Furthermore,

Takemura allows the user to select either portrait or landscape as finishing

information which require cropping the image. Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to

alter the size of the image to be displayed by using a cropping technique and

saving this parameter in the comment field in order to display only a portion of

the image to further enhance the details in that region of the original image. By

saving a cropping parameter the original image would still be saved as well in

order to allow the user to restore the image to its original shape at any point in time.

Regarding claim **26**, Takemura in view of Sato discloses all the limitations as previously discussed with respect to claim 18 as well as disclosing a method wherein the image is one of a plurality of images that are displayed in succession (Takemura: col. 10, lines 21-23 – reproducing in sequence a plurality of image files accumulated in the image server).

Regarding claim **27**, Takemura in view of Sato discloses all the limitations as previously discussed with respect to claims 18 and 26 including that each image of the plurality of images is provided with information indicative of modifications made to the image (Takemura: as be seen from Fig. 6 each image has a comment field attached to the image field).

Regarding claim **28**, Takemura in view of Sato discloses all the limitations as previously discussed with respect to claims 18 and 26 as well as disclosing a method wherein at least one image of the plurality of images is provided with information indicative of modifications made to the image, and wherein at least one other image of the plurality of images is modified based on the information (Takemura: col. 10, lines 21-23 - reproducing in sequence a plurality of image files accumulated in the image server; col. 10, lines 23-36 – an extraction/processing section 40 which extracts the part of the image data 38 corresponding to the area 25 on the basis of the position information 39 for each image file 37 and carries out enlargement processing on the extracted part of the

image data so that the extracted part of the image data conforms to the size of

the image to be reproduced as described later – thereby a plurality of image are

modified based on the parameter information).

Regarding claim **29**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claim 18 including that the image is

displayed on a screen (LCD) of a portable display device (digital camera)

(Takemura: Fig. 6 – the image is displayed on the camera to make the original

adjustments).

Regarding claim **30**, Takemura in view of Sato discloses all the limitations

as previously discussed with respect to claim 18 including that the image data is

transmitted to the display device over a wireless interface (Takemura: col. 8,

lines 57-67).

Regarding claim **31**, Takemura discloses a non-transitory computer-

readable medium for storage of image or audio data associated with an image or

audio representation, comprising the image or audio data and most recent

information (finishing information) regarding adjustments to the image or audio

representation, wherein the most recent information (finishing information)

regarding the adjustments is stored in a comment field of the non-transitory

computer-readable medium, and wherein the image or audio representation is

stored on the non-transitory computer-readable medium without reflecting the

adjustment to be made thereto (Fig. 6; col. 8, lines 22-56 – the image data and

the finishing information are stored separately and the image data is the original

image data as can be seen from Fig. 6). However, Takemura fails to disclose that the image data and comment field are stored in a lossy format.

Referring to the Sato reference, Sato discloses in Fig. 2 an example of the allocation of data areas of an image file formed in the memory card. Furthermore, Sato discloses that the image is compressed according to the JPEG algorithm (col. 3, lines 24-29). It is well known in the art that it is a component of JPEG that the data is stored in a lossy format.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have stored the image as in a lossy format as disclosed by Sato in the device disclosed by Takemura in order to take advantage of the lossy compression algorithms which takes the limitations of the human eye into account and discards information that cannot be seen, which allows the image to be further compressed and reduces the file size.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEATHER R. JONES whose telephone number is (571)272-7368. The examiner can normally be reached on Mon. - Thurs.: 7:00 am - 4:30 pm, and every other Fri.: 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter-Anthony Pappas can be reached on 571-272-7646. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heather R Jones
Examiner
Art Unit 2481

HRJ
March 12, 2011

/Peter-Anthony Pappas/
Supervisory Patent Examiner, Art Unit 2481